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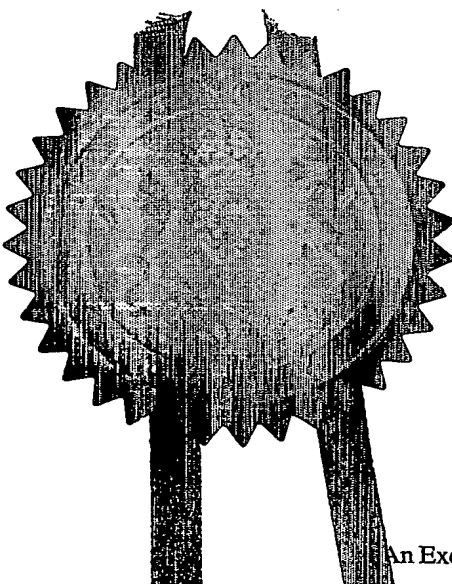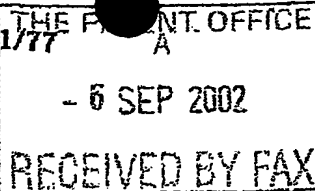
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Dated   21 October 2003

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1/77

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The Patent Office

06SEP02 E746477-1 010002
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1. Your reference

syc.2471.uk.dk/ja.b

2. Patent application number
(The Patent Office will fill in this part)

0220748.8

– 6 SEP 2002

3. Full name, address and postcode of the or of each applicant *(underline all surnames)*

SAW-YOU.com Limited
2 Clifton Street
GLASGOW
G3 7LA
United Kingdom

Patents ADP number *(if you know it)*

If the applicant is a corporate body, give the country/state of its incorporation

UK   8255903001

4. Title of the invention

Improved communication using avatars

5. Name of your agent *(if you have one)*

"Address for service" in the United Kingdom to which all correspondence should be sent *(including the postcode)*

Kennedys Group
Floor 5, Queens House
29 St Vincent Place
GLASGOW
G1 2DT
United Kingdom

Patents ADP number *(if you know it)*   8036758002

6. If you are declaring priority from one or more earlier patent applications, give the country and the date of filing of the or of each of these earlier applications and *(if you know it)* the or each application number

Country	Priority application number *(if you know it)*	Date of filing *(day / month / year)*

7. If this application is divided or otherwise derived from an earlier UK application, give the number and the filing date of the earlier application

Number of earlier application		Date of filing *(day / month / year)*

8. Is a statement of inventorship and of right to grant of a patent required in support of this request? *(Answer 'Yes' if:*
a) *any applicant named in part 3 is not an inventor, or*
b) *there is an inventor who is not named as an applicant, or*
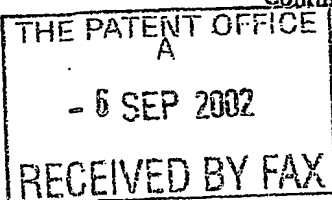c) *any named applicant is a corporate body.*
See note (d))

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D046356 06 Sep 02 05:28

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Description   17

Claim(s)

Abstract

Drawing(s)   4   A

10. If you are also filing any of the following,
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Priority documents

Translations of priority documents

Statement of inventorship and right
to grant of a patent *(Patents Form 7/77)*

Request for preliminary examination
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Request for substantive examination
(Patents Form 10/77)

Any other documents
(please specify)

11.

I/We request the grant of a patent on the basis of this application.

Signature _____

KENNEDYS GROUP

Date

6 September 2002

12. Name and daytime telephone number of
    person to contact in the United Kingdom

David Kennedy
tel: 0141 226 6826

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Patents Form 1/77

1 **Improved communication using avatars**

2

3 This invention relates to the general field of sending

4 messages from one person to another and more specifically

5 to the use of avatars for capturing attribute data of

6 users and avatars to other users to facilitate rich but

7 anonymous interaction.

8

9 In the field of messaging, text is commonly used to

10 identify users of messaging systems in ways that describe

11 their physical, geographical or social attributes. This

12 allows other to select users for the receipt of messages.

13 Such text offers descriptive information but maintains

14 anonymity and privacy. Static graphical icons can also

15 convey this information. The problem is that such an

16 approach does not present users with the simple visual

17 description that, for example, a photograph gives to make

18 a go /no-go decision in terms of pursuing contact.

19

20 If a user wants to show other users what they look like,

21 they can post a photograph. However, roughly 90% of

22 dating site users on the Internet do not and will not

23 post photographs of themselves for reasons of personal

2

1   privacy as they by definition lose some anonymity.
2   Posting some other static image depicting some of their
3   physical attributes is an option, for example using a
4   drawing program or scan of a hand drawing. However this
5   is not convenient for the user and it does not facilitate
6   automated searching for or organising of the physical
7   attributes, short of some complex pattern recognition
8   software trawling through the images.
9
10 Thus the user is constrained to either keep anonymity but
11 not convey well what they look like or lose anonymity by
12 showing what they look like with a photograph.
13 Furthermore, a problem with static images, including
14 photographs, is that they are not easy to update with
15 real time information about the user.
16
17 At present, Microsoft®'s instant messaging service
18 depicts its Buddy List as a set of monochrome pawns with
19 names below. This rather dull pawn representation does
20 provide anonymity if accompanied by a user name that
21 hides the identity of the associated user. However, the
22 viewer still has to read the text to identify even named
23 users. Items on the Buddy List indicate that another user
24 is on-line, but fail to convey further information about
25 the user. For example, what they look like, where they
26 are or what they are doing. Worse still, the rendering
27 of the Buddies on the list is performed without reference
28 to the current status of the attributes of the user being
29 represented. Even if the text is descriptive of such
30 attributes it is rendered using information that was
31 entered at the time of registration of the users'
32 account.
33

3

1   It is an object of the present invention to provide
2   convenient capture of individual's attributes.
3

4   It is a further object of the present invention to
5   provide convenient selection of individual's attributes.
6

7   It is a further object of the present invention to
8   provide convenient use of individual's attributes for
9   messaging.
10

11 According to a first aspect of the present invention,
12 there is provided a method of capturing attributes of
13 individuals comprising the steps:
14

15 -   maintaining a database of attributes and identifiers
16   of individuals;
17 -   inputting attributes of an individual; and
18 -   rendering an avatar, responsive to said attributes.
19

20 Preferably, the method further comprises the step of
21 storing the input attributes in the database.
22

23 Preferably, the method further comprises the steps of
24 determining the identifier of the individual and storing
25 the identifier in the database.
26

27 According to a second aspect of the present invention,
28 there is provided a method of messaging comprising the
29 steps:
30 -   maintaining a database of attributes and identifiers
31   of individuals;
32 -   selecting records in the database using input
33   attributes;

4

1 - - rendering an avatar using attributes stored in the

2   selected records;

3 -   selecting a rendered avatar;

4 -   identifying a recipient or allowed sender or

5   disallowed sender corresponding to the selected

6   rendered avatar and the message is sent to or

7   forwarded from or blocked from the identified

8 -   recipient or allowed sender or disallowed sender.

9

10 Typically, the input attributes are input by the steps of

11 inputting attributes of an individual and rendering an

12 avatar responsive to said attributes.

13

14 Optionally, the input attributes used for selecting

15 records in the database are attributes relating to the

16 location of a user.

17

18 Typically the recipient, allowed sender or disallowed

19 sender are identified using the database.

20

21 Alternatively identifiers are stored associated with the

22 rendered avatar and the recipient, allowed sender or

23 disallowed sender are identified using stored

24 identifiers.

25

26 According to a third aspect of the present invention,

27 there is provided a method of selecting individuals

28 comprising the steps:

29 -   maintaining a database of attributes and identifiers

30   of individuals;

31 -   selecting records in the database using input

32   attributes;

5

```
 1   -     rendering an avatar using attributes stored in the

 2         selected records; and

 3   -     selecting a rendered avatar.

 4

 5   Typically, the input attributes are input by the steps of

 6   inputting attributes of an individual and rendering an

 7   avatar, responsive to said attributes.

 8

 9   Optionally, the input attributes used for selecting

10   records in the database are attributes relating to the

11   location of a user.

12

13   According to a fourth aspect of the present invention,

14   there is provided a system of capturing attributes of

15   individuals comprising:

16

17   -     a database of attributes and identifiers of

18         individuals;

19   -     a character engine means for inputting attributes of

20         an individual and rendering an avatar, responsive to

21         said attributes.

22

23   Preferably, the character engine means is adapted to

24   store the input attributes in the database.

25

26   Preferably, the system further comprises a registration

27   means for determining the identifier of the individual

28   and storing the identifier in the database.

29

30   According to a fifth aspect of the present invention,

31   there is provided a system for messaging comprising:

32   -     a storage means for storing attributes and

33         identifiers of individuals;
```

1 -   an avatar rendering and selection means for
2   rendering an avatar using attributes stored in the
3   storage means, selecting a rendered avatar; and
4 -   a messaging means for identifying a recipient or
5   allowed sender or disallowed sender corresponding to
6   the selected rendered avatar and sending to or
7   forwarding from or blocking from the identified
8   recipient or allowed sender or disallowed sender.
9

10 Typically, the character engine means for inputting
11 attributes of an individual and rendering an avatar
12 responsive to said attributes is adapted to input
13 attributes for selecting data in the storage means.
14

15 Alternatively, the database of attributes and identifiers
16 of individuals is adapted to retrieve records responsive
17 to the location of a user.
18

19 Typically the messaging means is adapted to identify the
20 recipient, allowed sender or disallowed sender the
21 storage means.
22

23 Alternatively the avatar rendering and selection means is
24 adapted to store identifiers associated with the rendered
25 avatar and the messaging means is adapted to identify the
26 recipient, allowed sender or disallowed sender are
27 identified using the stored identifiers.
28

29 According to a sixth aspect of the present invention,
30 there is provided a system for of selecting individuals
31 comprising:
32 -   a storage means for storing attributes and
33   identifiers of individuals;

1 - an avatar rendering and selecting means for
2 rendering an avatar using attributes stored in the
3 storage means and selecting a rendered avatar.
4
5 Typically, a character engine means for inputting
6 attributes of an individual and rendering an avatar
7 responsive to said attributes is adapted to input
8 attributes for selecting data in the storage means.
9
10 Alternatively, the database of attributes and identifiers
11 of individuals is adapted to retrieve records responsive
12 to the location of a user.
13
14 Preferably, attributes of an individual include details
15 of the individual's physical appearance.
16
17 Preferably, the details of the individual's physical
18 appearance are selected from a list comprising their head
19 shape, eye colour, eyelid state, mouth type, hairstyle,
20 hair colour, skin colour, breast size, belly size and
21 their clothing.
22
23 Preferably, their clothing is selected from a list
24 comprising: top style, top colour, bottom trousers,
25 bottom colour, shoe type and shoe colour.
26
27 Preferably, the attributes of an individual include
28 details of the individual's behaviour.
29
30 Preferably, the details of the individual's behaviour are
31 selected from a list comprising: smoking preference,
32 drink preference, musical preference, interests and
33 clothing preferences.

8

1

2   Preferably, the attributes of an individual include

3   details of an individual's favourite community.

4

5   Typically the community is a sporting or musical

6   community.

7

8   Preferably, the inputting of attributes is performed

9   using a graphical user interface that includes an output

10   rendered avatar.

11

12   In order to provide a better understanding of the present

13   invention, an embodiment will now be described, by way of

14   example only, and with reference to the accompanying

15   Figures in which:

16

17   Figure 1 illustrates a flow chart of the steps for

18   registration including building an avatar,

19   retrieving and displaying a selection of avatars and

20   selecting an avatar for messaging in accordance with

21   the present invention;

22

23   Figure 2 illustrates the components of the system in

24   accordance with the present invention;

25

26   Figure 3 illustrates a graphical user interface for

27   building an avatar and a selection of avatars

28   rendered to display a range of attributes; and

29

30   Figure 4 illustrates a web services model.

31

32   The invention is a method and system that functions to

33   capture attributes of individuals through a convenient

9

1   interface for both the maintenance of a database and
2   selection of records in the database for messaging
3   purposes.
4
5   With reference to Figure 1, a flowchart 10 of the method
6   of capturing and using attributes of individuals is
7   shown.
8
9   During registration, the system determines 12 the
10   identifier of the individual, e.g. an email address or
11   name and stores 14 the identifier in the database 16. The
12   database is maintained to contain attributes and
13   identifiers of individuals. During registration and at a
14   later time, users input attributes 18 of an individual
15   using a "character engine" graphical user interface that
16   includes a displayed avatar, that is rendered 20
17   responsive to the attributes. The input attributes are
18   stored 22 in the database. Thus allows users to describe
19   themselves by building the avatar. Instead of using a
20   series of drop down menus or text inputs, users build up
21   the image of an avatar, graphically choosing hairstyle,
22   hair colour, face shape, etc.
23
24   Attributes of an individual include details of the
25   individual's physical appearance such as their head
26   shape, eye colour, eyelid state, mouth type, hairstyle,
27   hair colour, skin colour, breast size, belly size and
28   their clothing.
29
30   Their clothing is selected from top style, top colour,
31   bottom trousers, bottom colour, shoe type and shoe
32   colour.
33

10

1 The attributes may include details of the individual's
2 behaviour such as smoking preference, drink preference,
3 musical preference, interests and clothing preferences.
4 Attributes may also include details of an individual's
5 favourite community such as a sporting or musical
6 community.
7
8 The avatar may be animated (e.g. rendered using an
9 animated GIF) or may perform a number of tasks such as
10 speech or making sound. The avatar or database may co-
11 operate with software agents that perform other automated
12 tasks.
13
14 The attributes is stored in the database, starting with a
15 naked avatar:
16
17 char_head_shape=oval
18 char_eye_col=blue
19 char_eye_lid=open
20 char_mouth=mouth6
21 char_hair_style=s15
22 char_hair_col=ginger
23 char_fag=no
24 char_specs=none
25 char_facial=none
26 char_makeup=lash
27 char_sex=female
28 char_col=black
29 char_tits=medium
30 char_belly=none
31 char_top=tshirt
32 char_top_col=white
33 char_bot=skirt1

```
1    char_bot_col=blue
2    char_shoe=shoes
3    char_shoe_col=white
4    char_drink=cock
5
```

6   This data represents a blank avatar that is displayed at

7   the start of registration or when a user visits the site

8   and isn't logged in. Note that some of the values are

9   actually set at this point but are not rendered. For

10   example 'char_hair_col = ginger' does not appear as

11   ginger hair on the character because

12   'char_hair_style=s15' (ie. No hair).

13

14   After changing the attributes, the final attributes are

15   stored in the database, for example:

16

```
17   char_head_shape=round
18   char_eye_col=brown
19   char_eye_lid=open
20   char_mouth=mouth1
21   char_hair_style=s13
22   char_hair_col=black
23   char_fag=no
24   char_specs=none
25   char_facial=none
26   char_makeup=lash
27   char_sex=female
28   char_col=white
29   char_tits=none
30   char_belly=none
31   char_top=sweat
32   char_top_col=yellow
33   char_bot=bare
```

12

```
1   char_bot_col=blue
2   char_shoe=bare
3   char_shoe_col=blue
4   char_drink=none
5
```

6   The user can create a personal avatar and download either

7   the rendered image or the attributes to their computer or

8   mobile phone for such purposes as personalised screen

9   savers, phone screen logos, email signatures or instant

10 messaging personalities.

11

12 The user interface can be presented via web pages, I-

13 mode, WAP, GPRS, MMS or SMS technologies and protocols

14 using conventional programming techniques. In this

15 embodiment, a Macromedia® Flash front end is used with an

16 asp.net connection module to the database and a

17 Microsoft® SQL Server database engine.

18

19 The avatars or stored attributes can be migrated to

20 personalise web pages or for use in computer games, or

21 automated production of toys or other goods using the

22 attributes to select components. The stored identity can

23 be used for addressing delivery of the produced toys,

24 etc.

25

26 Messaging is performed by

27 -   maintaining a database 16 of attributes and

28   identifiers of individuals;

29 -   selecting 28 records in the database using input

30   attributes;

31 -   rendering 30 one or more avatars using attributes

32   stored in the selected records on the user's

33   display;

13

1   -   selecting 36 by clicking on a rendered avatar;

2   -   the system automatically identifying a recipient 38

3   or allowed sender or disallowed sender 42

4   corresponding to the selected rendered avatar and

5   then a message is sent 40 to or forwarded from or

6   blocked from 44 the identified recipient or allowed

7   sender or disallowed sender.

8

9   The input attributes are input 18 graphically using a

10   character engine that renders 20 an avatar responsive to

11   the input attributes and stores 22 them in the database.

12

13   The input attributes used for selecting records in the

14   database may be attributes relating to the location of a

15   user. For example if a user enters a bar, their phone

16   sends a message to a system that selects records 28 in

17   the database that match only that location.

18

19   Typically the recipient, allowed sender or disallowed

20   sender are identified using the database (shown by the

21   dotted lines with arrowheads).

22

23   Alternatively identifiers are stored 32 as a link or as

24   an embedded e-mail address associated with the rendered

25   avatar image and the recipient, allowed sender or

26   disallowed sender are identified using these stored

27   identifiers 34.

28

29   The system can be used simply as a convenient method of

30   selecting or more individuals by:

31   -   maintaining a database 16 of attributes and

32   identifiers of individuals;

14

1 -   selecting 28 records in the database using input
2   attributes;
3 -   rendering an avatar 30 using attributes stored in
4   the selected records; and
5 -   selecting 36 a rendered avatar.
6
7 With reference to figure 2, a system of capturing
8 attributes of individuals is shown.
9
10 The system includes a database of attributes 50 and
11 identifiers of individuals implemented in Microsoft SQL
12 Server and a registration module 52 with its input 54 and
13 display 56 and a module 58 for determining the identifier
14 of the individual and a module 60 implemented in asp.net
15 for storing the identifier in the database.
16
17 The system further comprises a character engine 62
18 implemented using Macromedia® Flash with an input 64 and
19 a display 66 for inputting and a selection module 68 for
20 selecting attributes of an individual and a rendering
21 module 70 rendering an avatar, responsive to the
22 attributes.
23
24 The character engine has a database access module 72 that
25 stores the input attributes in the database.
26
27 The character engine 62 may be used to input attributes
28 for selecting data in the storage means.
29
30 The system for messaging uses:
31 -   a storage means 50 for storing attributes and
32   identifiers of individuals;

15

1   -   an avatar rendering and selection engine 74 with a

2   in input 76 and display 78 and a module 80 for

3   rendering an avatar using attributes stored in the

4   storage means, and a module 82 for selecting a

5   rendered avatar;

6   -   a database access module 84;

7   -   a messaging engine 86 with a module 88 for

8   identifying a recipient or allowed sender or

9   disallowed sender corresponding to the selected

10   rendered avatar and a module 92 for sending to or

11   forwarding from or blocking from the identified

12   recipient or allowed sender or disallowed sender.

13   The messages are routed via a messaging network 94

14

15   With reference to Figure 3, upon registration, a

16   graphical user interface 310 displays a naked avatar 311

17   with a menu 312 for selecting attributes 313. Attribute

18   selection button 314 can be clicked on by the user to

19   change the selected attribute which also triggers the

20   avatar rendering module to re-render and output the

21   avatar with the selected attribute depicted. A save

22   button 315 can be clicked on by the user to trigger the

23   character engine to store the attribute in the database.

24   Based on the physical appearance users now build up their

25   avatar.

26

27   A selection of such avatar heads 316 are shown. Further

28   physical appearance is differentiated by top colour and

29   type of drink. Male figures 317 can be described down to

30   belly size reflecting physical build. Female avatars 318

31   can be enhanced with chest size, makeup, top colour and

32   drink. Facial expressions 319 can be created with the use

33   of eyelids.

1

2   With reference to Figure 4, the Web services link 410

3   will allow 3rd party services 412 to access and retrieve

4   locally created avatars (created and maintained by

5   systems 413 and methods in accordance with the present

6   invention by users at terminals 415) and/or attributes

7   from the database 414 based on a unique identifier such

8   as e-mail address or phone number. This allows the 3rd

9   party to incorporate the personalised avatar and/or

10 attributes into their service or database 416 for the

11 benefit of their users on terminals 417. For example,

12 this service could be a messaging service such as

13 Hotmail®, MSN Instant Messenger®, or an ISP wishing to

14 personalise their pages etc. Web Services is just one

15 method of providing the avatars. The avatars may also be

16 provided through agreement & database sharing, for

17 example through a telecom interface 418.

18

19 Although the embodiments of the invention described with

20 reference to the drawings comprise computer apparatus and

21 processes performed in computer apparatus, the invention

22 also extends to computer programs, particularly computer

23 programs on or in a carrier, adapted for putting the

24 invention into practice. The program may be in the form

25 of source code, object code, a code of intermediate

26 source and object code such as in partially compiled form

27 suitable for use in the implementation of the processes

28 according to the invention. The carrier may be any

29 entity or device capable of carrying the program.

30

31 For example, the carrier may comprise a storage medium,

32 such as ROM, for example a CD ROM or a semiconductor ROM,

33 or a magnetic recording medium, for example, floppy disc

17

1   or hard disc. Further, the carrier may be a

2   transmissible carrier such as an electrical or optical

3   signal which may be conveyed via electrical or optical

4   cable or by radio or other means.

5

6   When the program is embodied in a signal which may be

7   conveyed directly by a cable or other device or means,

8   the carrier may be constituted by such cable or other

9   device or means.

10

11 Alternatively, the carrier may be an integrated circuit

12 in which the program is embedded, the integrated circuit

13 being adapted for performing, or for use in the

14 performance of, the relevant processes.

15

16 Further modifications and improvements may be added

17 without departing from the scope of the invention herein
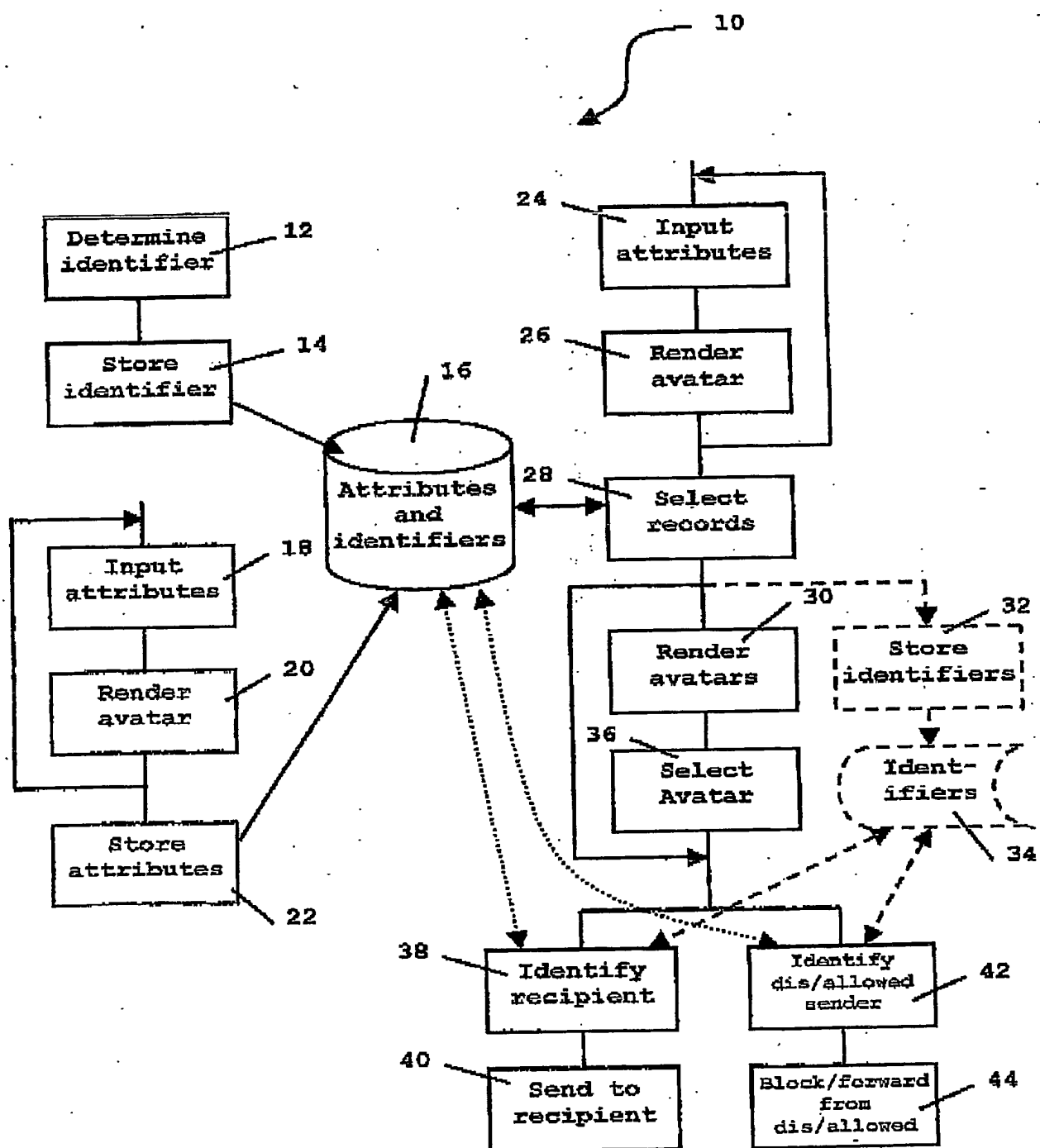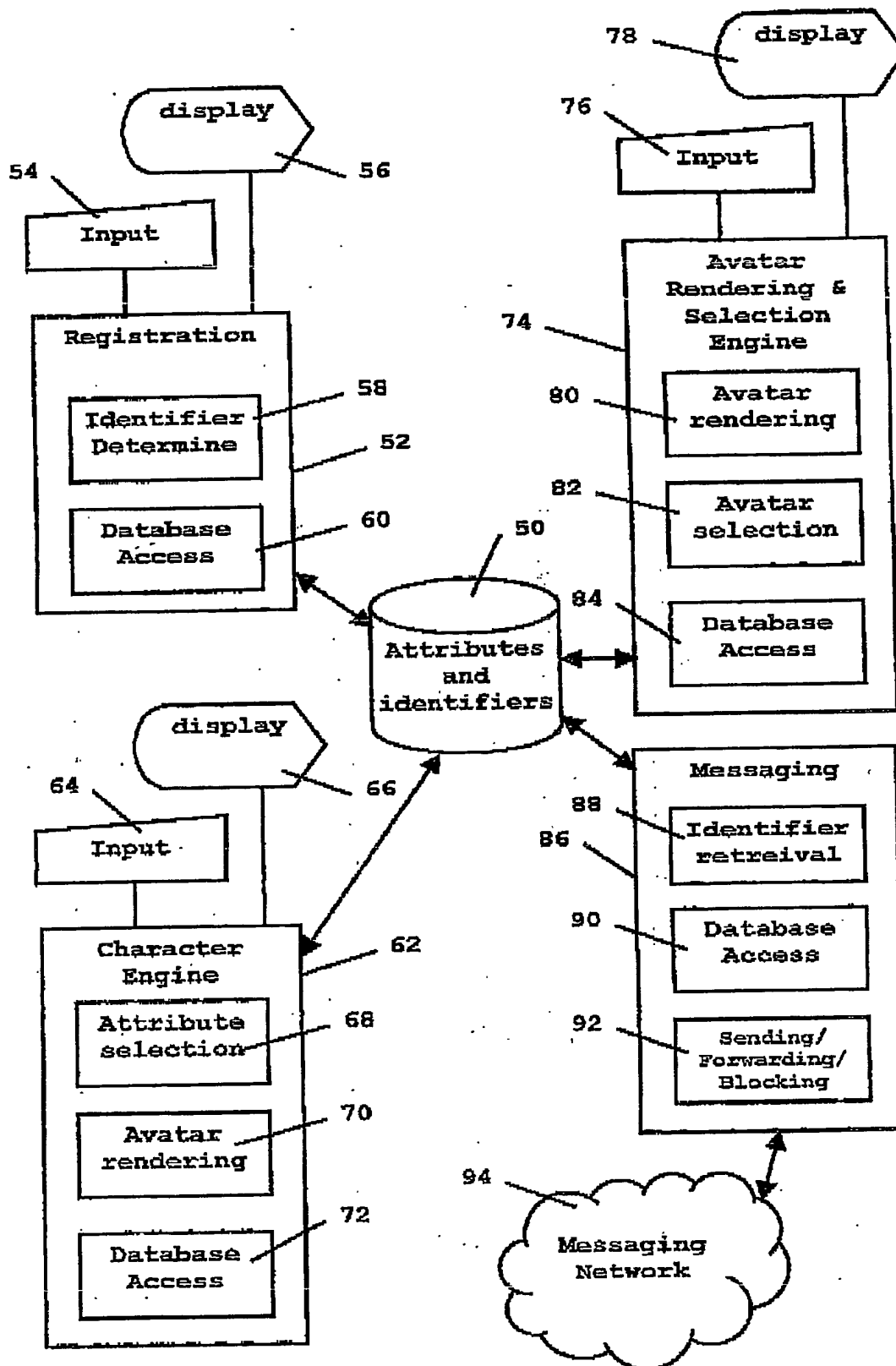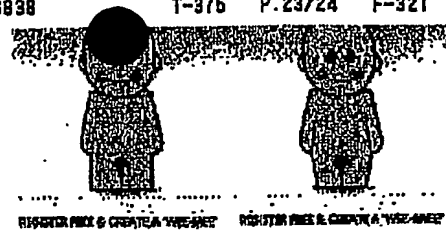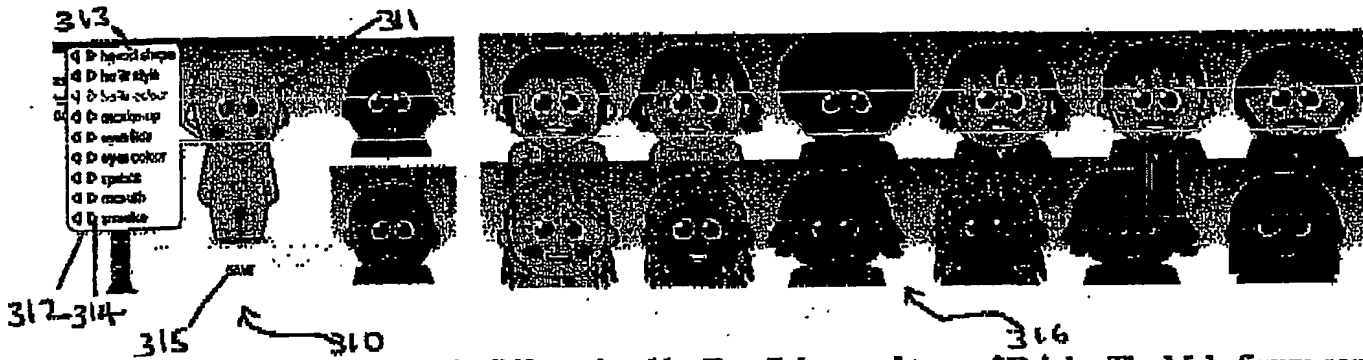
18 described.

1/4

10

| Determine identifier | 12 |

| Store identifier | 14 |

16

Attributes and identifiers

| Input attributes | 18 |

| Render avatar | 20 |

| Store attributes | 22 |

| Input attributes | 24 |

| Render avatar | 26 |

| Select records | 28 |

| Render avatars | 30 |

| Store identifiers | 32 |

| Select Avatar | 36 |

| Identifiers | 34 |

| Identify recipient | 38 |

| Identify dis/allowed sender | 42 |

| Send to recipient | 40 |

| Block/forward from dis/allowed | 44 |

Fig. 1

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Fig. 2

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...on registration user begins with naked Male/Female WeeMee.

Based on physical appearance users now build up their character from Head Shape, Eye Colour, Ethnicity. This is further enhanced by Hair Style, Hair Colour, Glasses, Smoker, non-smoker.

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Further physical appearance is differentiated by Top Colour and type of Drink. The Male figure can be described down to "belly" size reflecting to physical build.
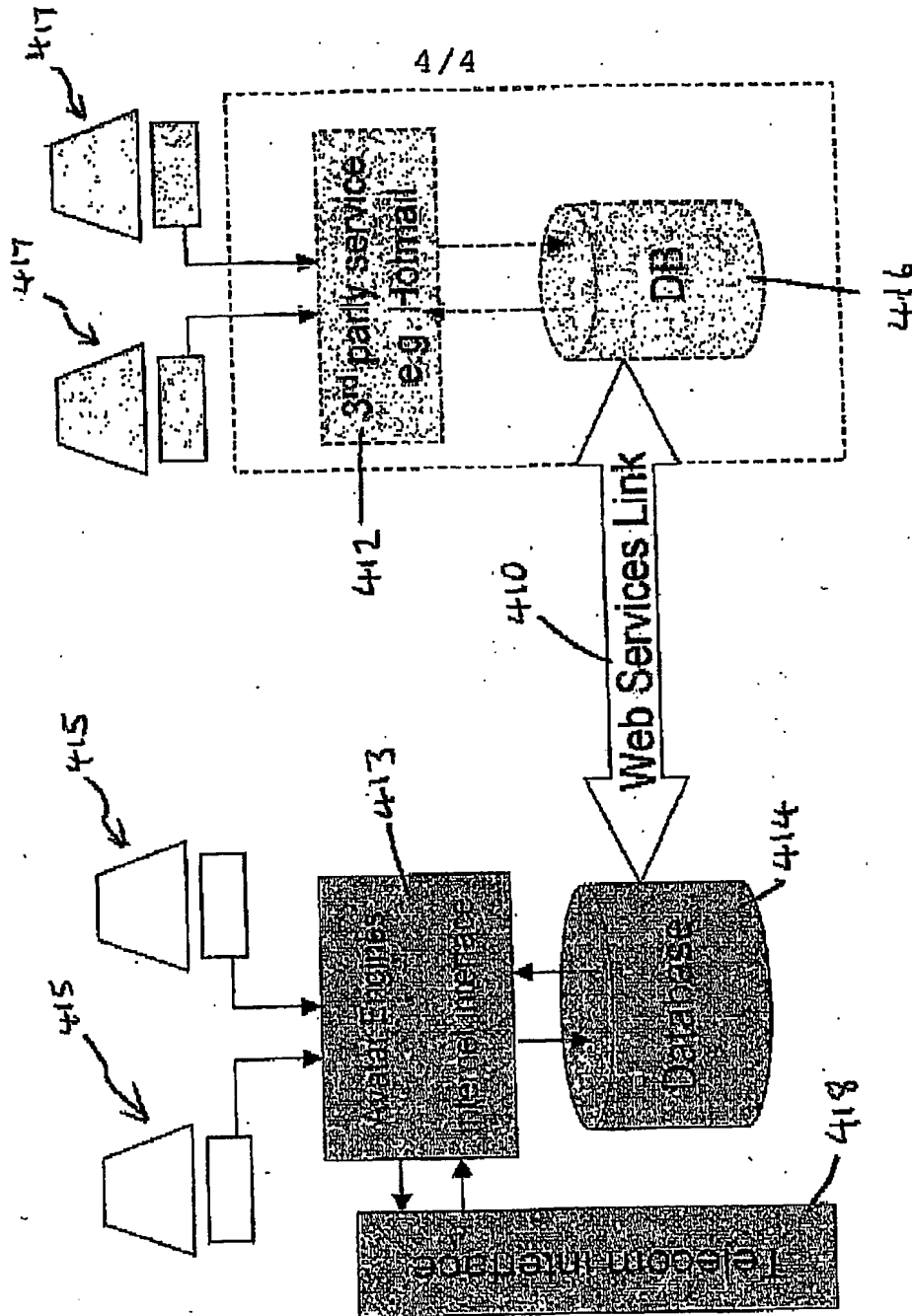
317
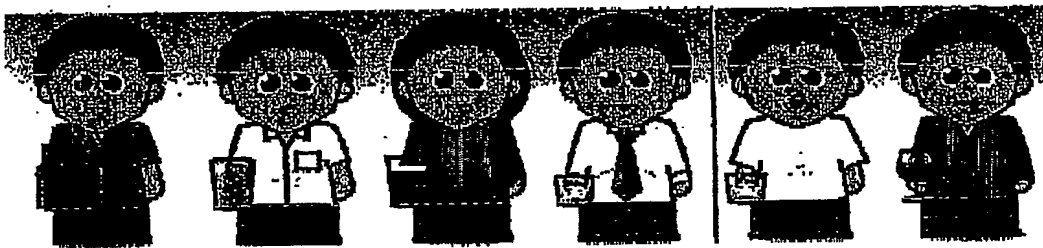
Female figure can be enhanced with Chest size, Make up, Top Colour and Drink type.

318
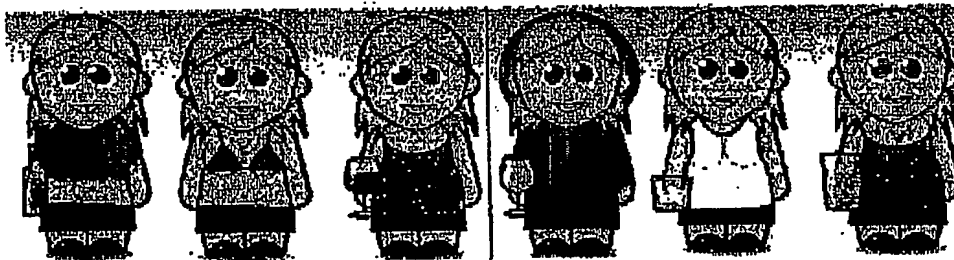
Facial expressions can be created with the use of eyelids.

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Fig 3.

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Fig. 4